## DATES @ DATA

#### June 13

Aero Club meets: The Bay Area Aero Club meets at 7 p.m. at the Houston Gulf Airport clubhouse at 2750 FM 1266 in League City. For more information contact Larry Hendrickson at x32050.

#### June 14

Astronomy seminar: The JSC Astronomy Seminar Club will meet at noon June 14, 21 and 28 in Bldg. 31, Rm. 248A. For more information contact Al Jackson

IAAP meets: The Clear Lake/NASA Chapter of the International Association of Administrative Professionals meets at 5:30 p.m. at Bay Oaks Country Club. Cost is \$16. For more information and reservations, call Tami Barbour at (281) 488-0055, x238.

Spaceteam Toastmasters meet: The Spaceteam Toastmasters meets at 11:30 a.m. June 14, 21, and 28 at United Space Alliance, 600 Gemini. For more information contact Patricia Blackwell at (281) 280-6863.

#### June 15

Communicators meet: The Clear Lake Communicators, a Toastmasters International club, meets June 15, 22, and 29 at 11:30 at Wyle Laboratories, 1100 Hercules, Suite 305. For more information contact Allen Prescott at (281) 282-3281or Richard Lehman at (281) 280-6557.

Directors meet: The Space Family Education board of directors meets at 11:30 a.m. in Bldg. 45, Rm. 712D. For more information contact Lynn Buquo at x34716.

#### June 20

NPMA meets: The National Property Management Association meets at 11:30 a.m. June 20 and July 18 at the Gilruth Center. For more information contact Ray Whitaker at (281) 212-6030.

#### June 21

Scuba club meets: The Lunarfins meets at 7:30 p.m. For more information contact Mike Manering at x32618.

#### June 29

Radio Club meets: The JSC Amateur Radio Club meets at 6:30 p.m. at Piccadilly, 2465 Bay Area Blvd. For more information contact Larry Dietrich at x39198.

#### July 3

National Space Society meets: The Clear Lake area chapter of the National Space Society meets at 6:30 p.m. at the

## OUT&ABOUT\*





JSC's Employee Assistance Program welcomes Channel 13 Weatherman Ed Brandon as he presents "Coping without Chemicals," a rare personal glimpse into his journey from chemical dependency and depression to sobriety and spirituality. The event is scheduled for June 21, 11:30 a.m. to 12:30 p.m. in the Bldg. 30 Auditorium. Barbara Reichlin, MA, LPC, LMFT, a recent guest of the EAP, presented "Getting the Love You Want." For more information on EAP activities call x36310.

> Parker Williams Branch of the Harris Co. Library at 10851 Scarsdale Blvd. For more information contact Murray Clark at (281) 367-2227.

#### July 6

Warning System Test: The site-wide Employee Warning System performs its monthly audio test at noon. For more information contact Bob Gaffney at x34249.

#### July 13

Airplane club meets: The Radio Control Airplane Club meets at 7 p.m. at the Clear Lake Park building. For more information contact Bill Langdoc at x35970.

MAES meets: The Society of Mexican-American Engineers and Scientists meets at 11:30 a.m. in Bldg. 16, Rm. 111. For more information contact George Salazar at x30162.

#### July 14

Astronomers meet: The JSC Astronomical Society meets at 7:30 p.m. at the Center for Advanced Space Studies, 3600 Bay Area Blvd. For details contact Chuck Shaw at x35416.

# TICKET WINDOW

#### The following discount tickets are available at the Exchange Stores General Cinema Theaters ......\$5.50 Sony Loew's Theaters ..... Fiesta Texas ......adult ...\$20.50...child (under 48 inches) .. \$17.25 Astroworld Early Bird (use by June 18) ......\$17.25 WaterWorld ......\$12.00 Moody Gardens (2 events) (does not include Aquarium Pyramid) . . . . . . . . \$10.75 Space Center Houston . . . . . . adult . . \$11.00 . . . . . child (age 4-11) . . . . \$7.25 (JSC civil service employees free.)

#### **Exchange Store hours**

Monday-Friday 7 a.m.-4 p.m. Bldg. 3 Bldg. 11 9 a.m.-3 p.m.

- > All tickets are nonrefundable.
- ➤ Metro tokens and value cards are available.

For additional information, please call x35350.

Please bring your driver's license to pay by personal check.

### **NASA BRIEFS**

#### **NASA SPACECRAFT DATA IMPROVES TROPICAL FORECASTS**

A microwave imager on board a NASA spacecraft can help improve forecasts of hurricanes and severe storms and can monitor long-term climate by seeing through clouds, new research shows.

The Tropical Rainfall Measuring Mission (TRMM) Microwave Imager (TMI) represents the first microwave spacecraft sensor capable of accurately measuring sea-surface temperatures through clouds. These findings were reported in the journal Science by Frank Wentz and colleagues at Remote Sensing Systems, Santa Rosa, California, who also are TRMM Science Team members.

Science team members have found that data from the TMI sensor on board the spacecraft has great potential to increase the accuracy of tropical storm and climate forecasts.

Microwave radiation penetrates clouds with little loss of signal, providing an uninterrupted view of the ocean surface, whereas much of the infrared radiation, typically used for measuring sea-surface temperatures from satellites, is blocked by cloud cover.

"The microwave imager can give consistent readings of sea-surface temperatures even through clouds," said Wentz, director of Remote Sensing Systems. "To date we've been limited by infrared sensors. Having the complete picture of ocean surface temperatures should greatly improve numerical models being run by the National Weather Service." Sea-surface temperature plays a fundamental role in the exchange of energy, momentum, and moisture between the ocean and the atmosphere and is a central factor of air-sea interactions and climate variability. A better understanding of air-sea dynamics will translate into better weather forecasting.

#### **GODDARD TO PROCURE LANDFILL GAS**

NASA's Goddard Space Flight Center will burn landfill gas to heat its buildings under a new contract awarded recently.

"This project will prevent as much pollution as planting 68,000 acres of trees or removing 100,000 cars from Maryland highways by reducing harmful gases produced at the center and the landfill. As an added benefit, we expect significant savings over our current gas and fuel oil costs. Further savings will be realized in the future if the center expands the project to include alternate fuel for our vehicles," said Barry Green, Goddard energy manager.

The sole-source contract was awarded to Toro Energy of Maryland, LLC, Dallas, Texas, for utility service of landfill gas. The contract also will provide for modification of two Goddard boilers in the center's central heating plant, construction of a pipeline to transport landfill gas to Goddard, and construction of a gas-treatment facility at the Sandy Hill landfill in Bowie, Maryland.

Goddard's five boilers currently are capable of burning either of two fuels: natural gas or diesel fuel oil. The contract will modify two of these boilers so that they each can burn landfill gas, natural gas, or diesel fuel oil. The remaining boilers will remain unchanged.

## SPACE CENTER Roundup

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